## Message

From: Schock, Michael [Schock.Michael@epa.gov]

**Sent**: 2/22/2016 3:18:57 PM

To: Rodgers, Mark [Rodgers.Mark@epa.gov]; Deltoral, Miguel [deltoral.miguel@epa.gov]; Hazan@nsf.org

**CC**: Lytle, Darren [Lytle.Darren@epa.gov]

Subject: RE: shower filters and related

Yes, good point. I think it's being confused in the overall response team back and forth. I don't know enough about the standards to know if such a filter would have to be certified under NSF 61 for lead, or if there's some separate standard for shower filters that differentiates bacteria, chlorine, lead, etc. like NSF 53 does.

From: Rodgers, Mark

Sent: Monday, February 22, 2016 10:12 AM

To: Deltoral, Miguel <deltoral.miguel@epa.gov>; Schock, Michael <Schock.Michael@epa.gov>; Hazan@nsf.org

Cc: Lytle, Darren < Lytle.Darren@epa.gov>
Subject: RE: shower filters and related

The carbon in the filters removes the chlorine, accumulates debris and provides a significant amount of surface area, all of which combine to encourage microbial biofilm growth in the filters.

There are shower filters designed to remove bacteria from the water. These are membrane filters I believe. I can provide additional info on these filters if needed.

I have a question about whether the shower filters in Flint are meant to remove lead or bacteria. Those would likely be different filters.

Mark

From: Deltoral, Miguel

Sent: Monday, February 22, 2016 10:04 AM

To: Schock, Michael <Schock.Michael@epa.gov>; Hazan@nsf.org

Cc: Lytle, Darren < Lytle.Darren@epa.gov>; Rodgers, Mark < Rodgers.Mark@epa.gov>

Subject: RE: shower filters and related

Q: Data is showing good residuals throughout the city, so if the water is chlorinated up to the point of the filter, this should take care of the bacteria. Why would there be concerns about bacteria accumulating on the carbon if there is a decent chlorine residual right up to the filter?

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Regulations Manager
Ground Water and Drinking Water Branch
77 West Jackson Blvd (WG-15J)

Chicago, IL 60604 Phone: (312) 886-5253

From: Schock, Michael

Sent: Monday, February 22, 2016 8:32 AM

To: Hazan@nsf.org

Cc: Lytle, Darren <<u>Lytle.Darren@epa.gov</u>>; Deltoral, Miguel <<u>deltoral.miguel@epa.gov</u>>; Rodgers, Mark

<Rodgers.Mark@epa.gov>

Subject: shower filters and related

Hi, Stan:

A group of the Flint emergency responders wants to do some kind of public messaging on shower filters or tub filters (if such an animal exists). Some of the key concerns are: (1) do any remove lead, reproducibly, and are any certified for that? (2) are there any studies that show microbial regrowth vulnerabilities, or possible accumulation of pathogens, such as legionella? (3) and related to (2), is there any distinction in possible issues with composition or design of the filters?

France Lemieux suggested that you might have information that you might be able to send, or point us to, that we can pass on. I know a lot more about the NSF 61 kinds of certification and devices, than this application, and I don't think anyone else involved is really conversant with the standards or state of the literature on them, either. Any help and guidance you can offer would be appreciated!

--Mike

## Michael R. Schock

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"Let's eat grandma!" "Let's eat, grandma!" Respect grammar; commas save lives!